

What is claimed is:

1. A method for inserting a catheter into a dura of a patient, comprising the steps of:  
making a hole having a predetermined diameter in said dura of said patient;  
stretching an extensible catheter having a predetermined diameter in a relaxed state of said catheter, said predetermined diameter in said relaxed state of said catheter being greater than or equal to said predetermined diameter of said hole, a predetermined distance to a stretched state such that said catheter has a diameter in said stretched state that is smaller than said predetermined diameter of said hole and securing said catheter in said stretched state;  
inserting said catheter in said stretched state through said hole into said cranium of said patient; and  
returning said catheter from said stretched state to said relaxed state allowing said catheter to fill said hole.
2. A method as in claim 1 wherein said predetermined diameter of said catheter in said relaxed state is greater than said predetermined diameter of said hole.
3. A method as in claim 1 wherein said stretching step comprises:  
inserting a distal end of a stylet into a lumen at a proximal end of said catheter to a distal end of said catheter;  
pulling said proximal end of said catheter to a location a predetermined distance toward a proximal end of said stylet; and  
securing said proximal end of said catheter at said location.
4. A method as in claim 3 wherein said releasing step comprises releasing said catheter from location on said stylet.

5. A method as in claim 3 wherein said proximal end of said catheter has a female luer and said proximal end of said catheter is secured at said location on said stylet with a mating luer cap.
6. A method as in claim 5 wherein said returning step comprises releasing said female luer from said luer cap.
7. A method as in claim 1 wherein said stretching step reduces said predetermined diameter of said catheter in said stretched state to eighty-five percent (85%) or less of said predetermined diameter of said catheter in said relaxed state.
8. A stylet adapted for stretching an extensible catheter having a lumen, having a diameter and a length in a relaxed state and having a first attachment at a proximal end of said catheter, comprising:  
  
an elongate rod sized and having a distal end adapted to be inserted into said lumen at said proximal end of said catheter;  
  
a second attachment affixed to said elongate rod and positioned a fixed distance from said distal end of said elongate rod, said fixed distance being greater than said length of said catheter;  
  
said fixed distance being selected such that said diameter of said catheter in said relaxed state is reduced a predetermined amount when said first attachment is affixed to said second attachment creating a stretched state of said catheter.
9. A stylet as in claim 8 wherein said predetermined diameter of said catheter in said relaxed state is greater than said predetermined diameter of said hole.
10. A stylet as in claim 8 wherein first attachment is a first luer and said second attachment is a second luer adapted to mate with said first luer.
11. A stylet as in claim 10 wherein said first luer is a female luer and said second luer is a luer cap.

12. A stylet as in claim 8 wherein said fixed distance is selected to reduce said predetermined diameter of said catheter in said stretched state to eighty-five percent (85%) or less of said predetermined diameter of said catheter in said relaxed state.
13. An apparatus for creating a catheter capable of being passed through a hole having a predetermined diameter in a dura of a patient, comprising:
  - an extensible catheter having a predetermined diameter in a relaxed state of said catheter, said predetermined diameter in said relaxed state of said catheter being greater than or equal to said predetermined diameter of said hole;
  - a first attachment affixed to a proximate end of said catheter;
  - a stylet having a distal end adapted to be inserted into a lumen of said catheter at said proximate end of said catheter; and
  - a second attachment affixed a fixed distance away from said distal end of said stylet, said second attachment adapted to mate with said first attachment;said fixed distance being selected such that said diameter of said catheter in said relaxed state is smaller than said predetermined diameter of said hole when said second attachment is affixed to said first attachment.
14. An apparatus as in claim 13 wherein said predetermined diameter of said catheter in said relaxed state is greater than said predetermined diameter of said hole.
15. An apparatus as in claim 13 wherein first attachment is a first luer and said second attachment is a second luer adapted to mate with said first luer.
16. An apparatus as in claim 15 wherein said first luer is a female luer and said second luer is a luer cap.
17. An apparatus as in claim 13 wherein said fixed distance is selected to reduce said predetermined diameter of said catheter in said stretched state to eighty-five

percent (85%) or less of said predetermined diameter of said catheter in said relaxed state.